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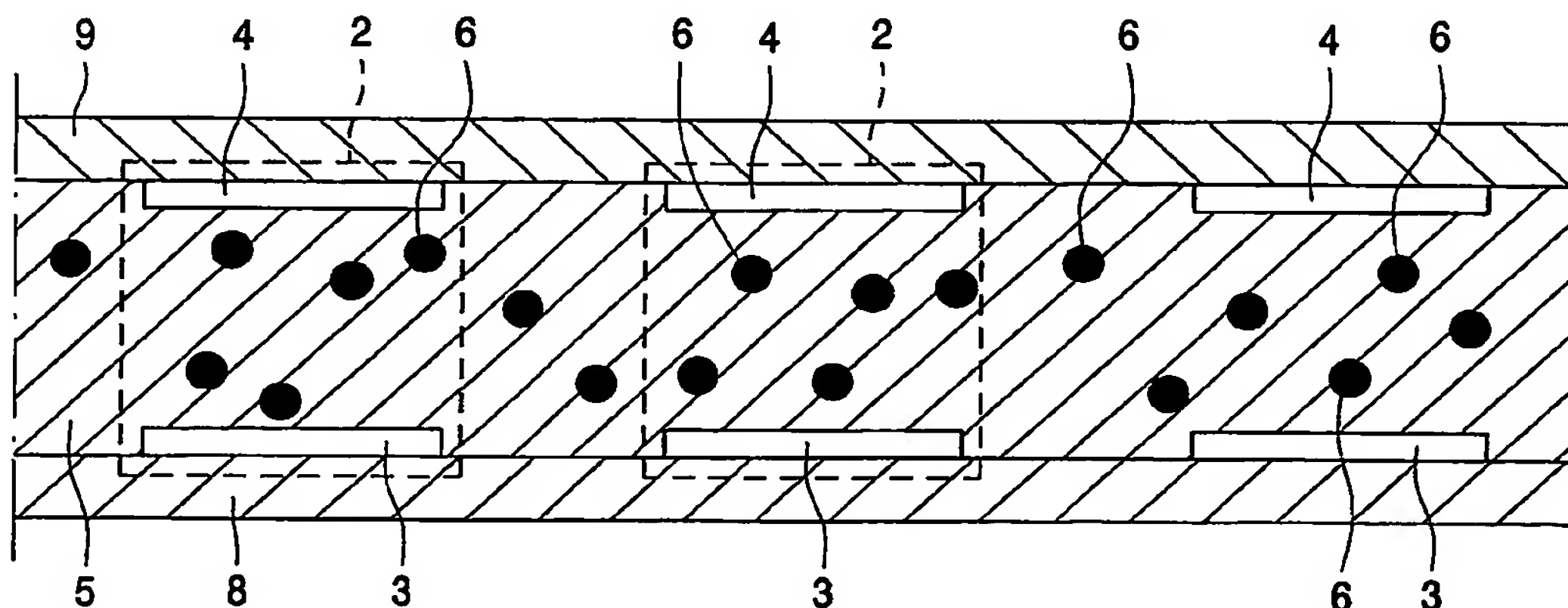
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(54) Title: METHOD AND APPARATUS FOR IMPROVING BRIGHTNESS IN AN ELECTROPHORETIC DISPLAY



(57) Abstract: An electrophoretic display (1) comprising an electrophoretic medium (5) comprising a plurality of negatively charged black particles (6) and a plurality of positively charged white particles (6) in fluid. The average dc value of the drive voltages is arranged to be non-zero, so as to maximise brightness or contrast ratio of the displayed image, as required. If the average dc value of the drive voltages has a positive polarity, such that a small positive voltage is applied to the pixel electrode (3), although the white level may be less bright, the black level becomes darker, thereby increasing the contrast ratio during the driving sequence, which is obviously advantageous if the contrast ratio is the most important display parameter. If, on the other hand, maintaining or increasing a maximum brightness level is of key importance, then a drive sequence where the average dc value of all drive waveforms has a negative polarity is applied, so as to apply a small, controlled negative voltage to the pixel electrode (3). In this case, although the black level may become less dark, the white level becomes significantly brighter, such that the brightness is increased during the driving sequence, which is obviously advantageous if brightness is the most important display parameter.

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